

No. 757,145.

PATENTED APR. 12, 1904.

I. E. ROGERS & G. A. FRY.
JOURNAL BOX.

APPLICATION FILED JUNE 12, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1.

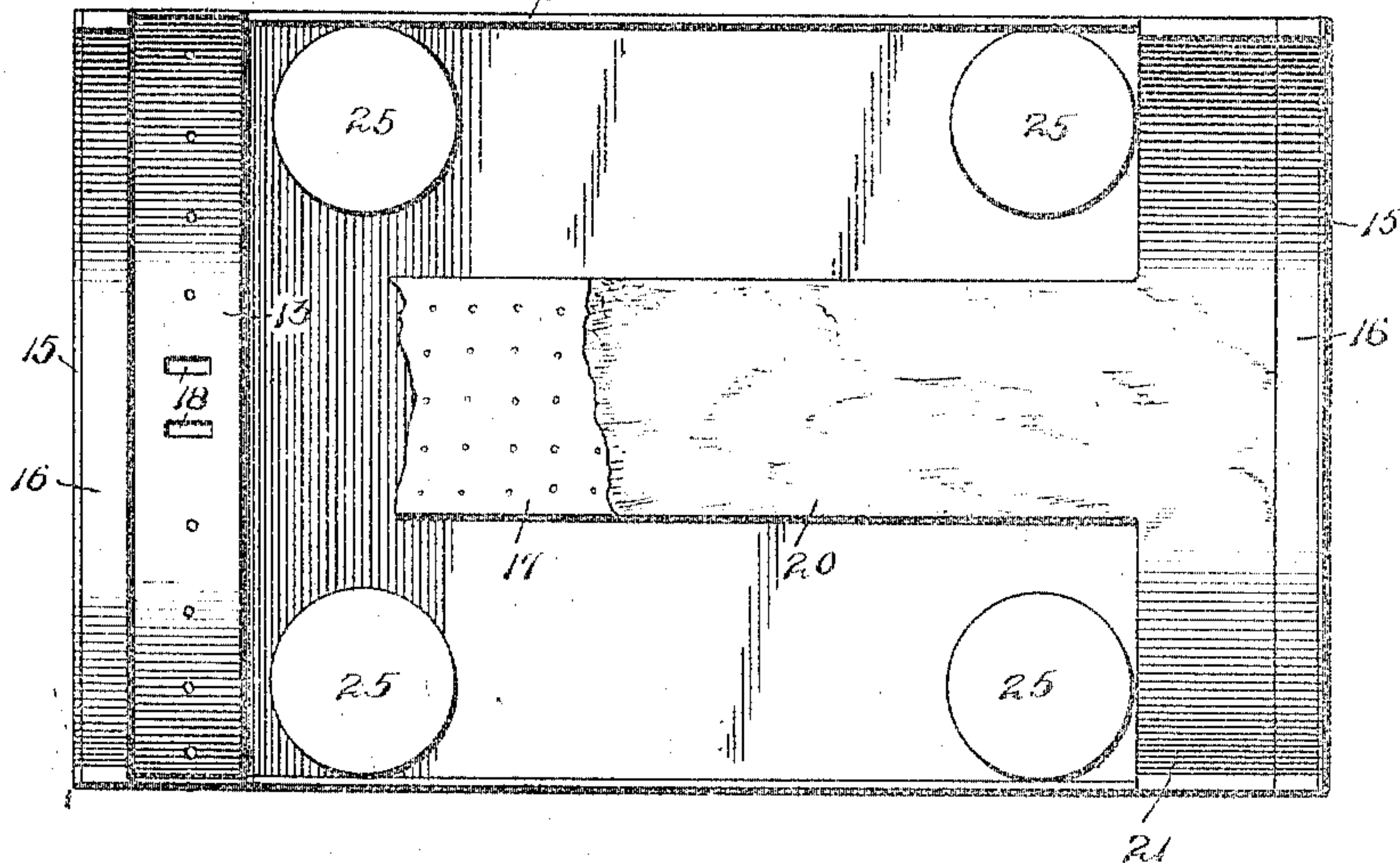
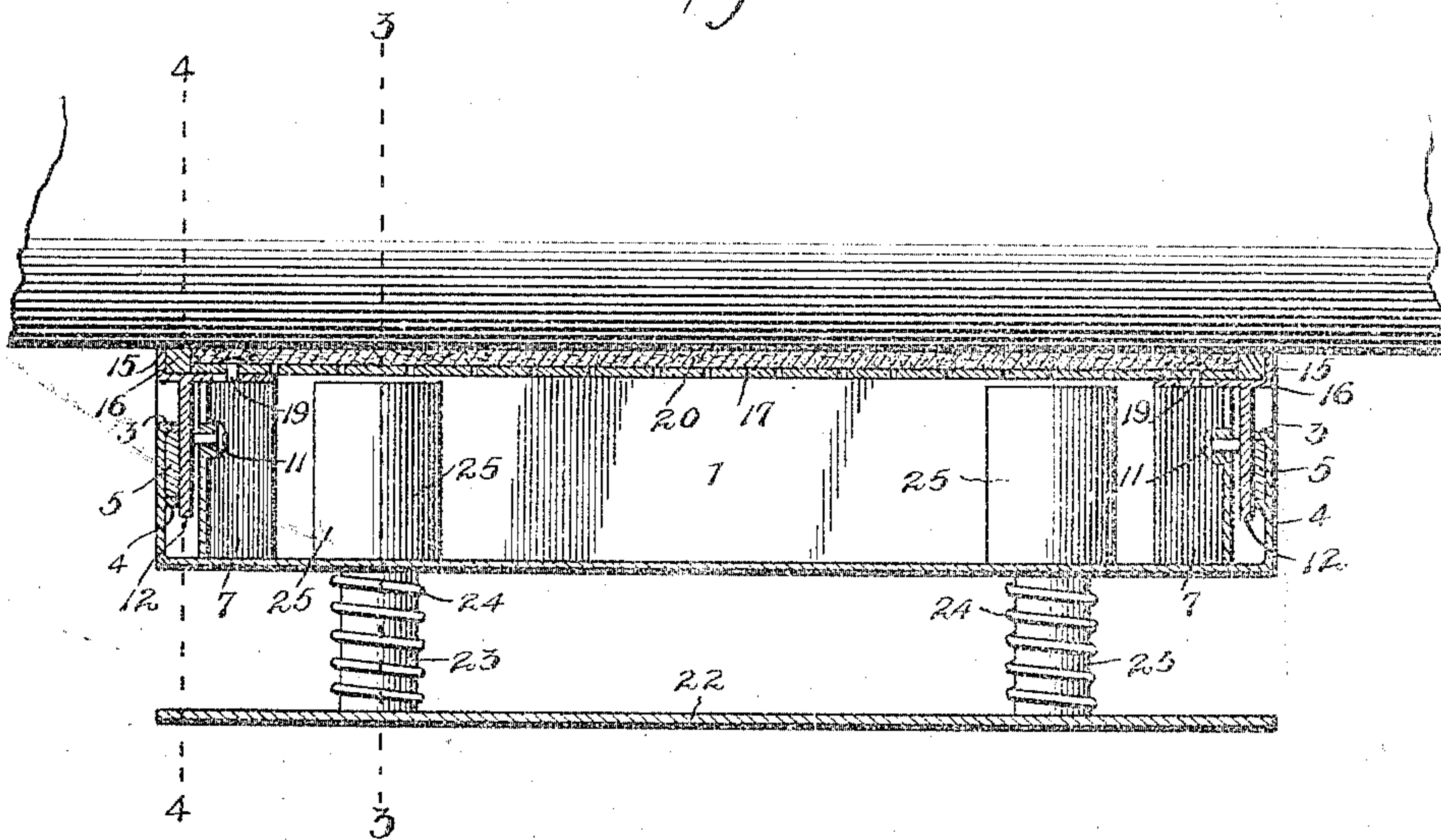


Fig. 2.



Witnesses
Ralph A. Shepard
R. J. Shepard

Ion E. Rogers Inventors
and George H. Fry
By
C. C. Shepherd, Attorney

No. 757,145.

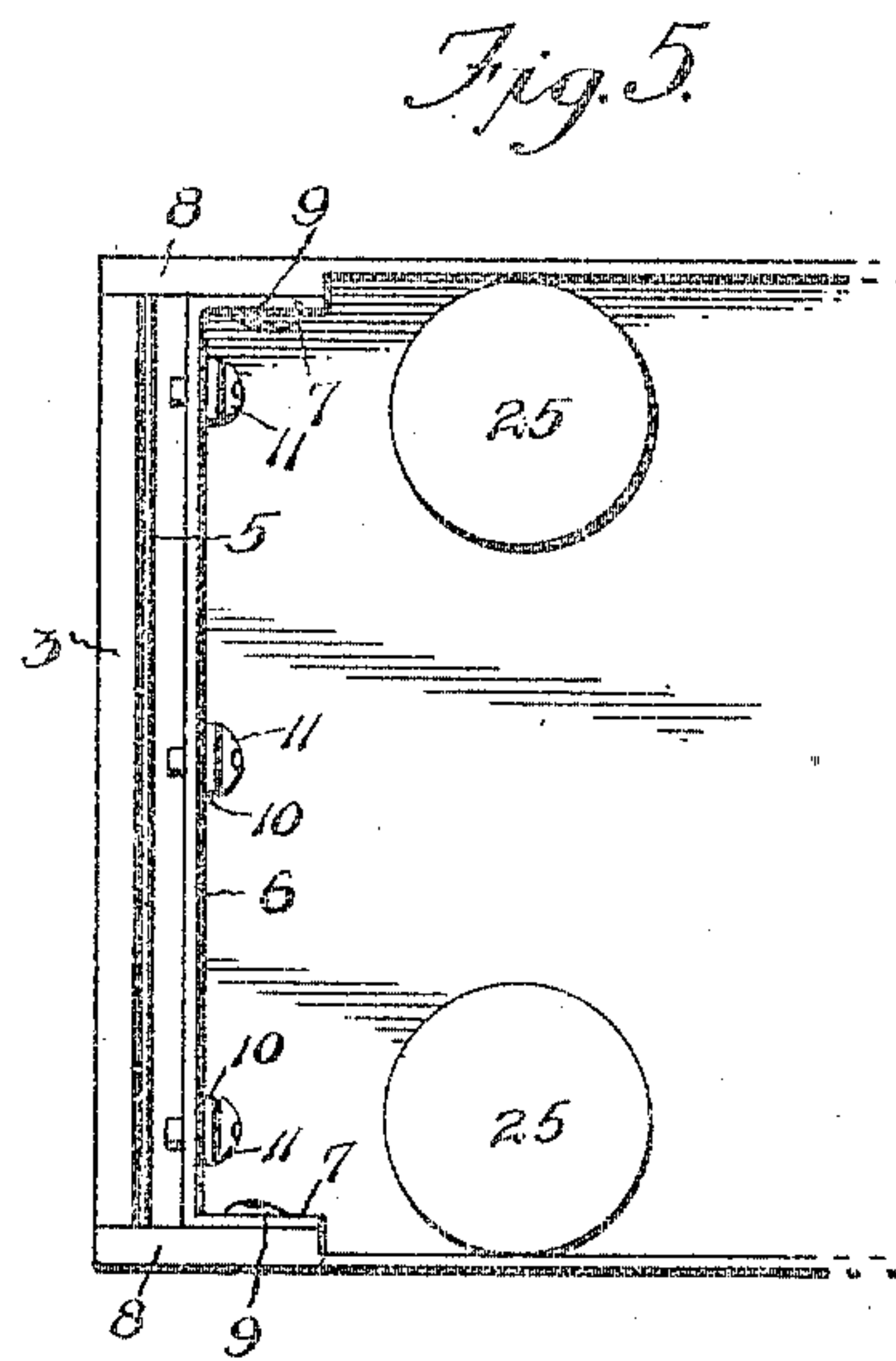
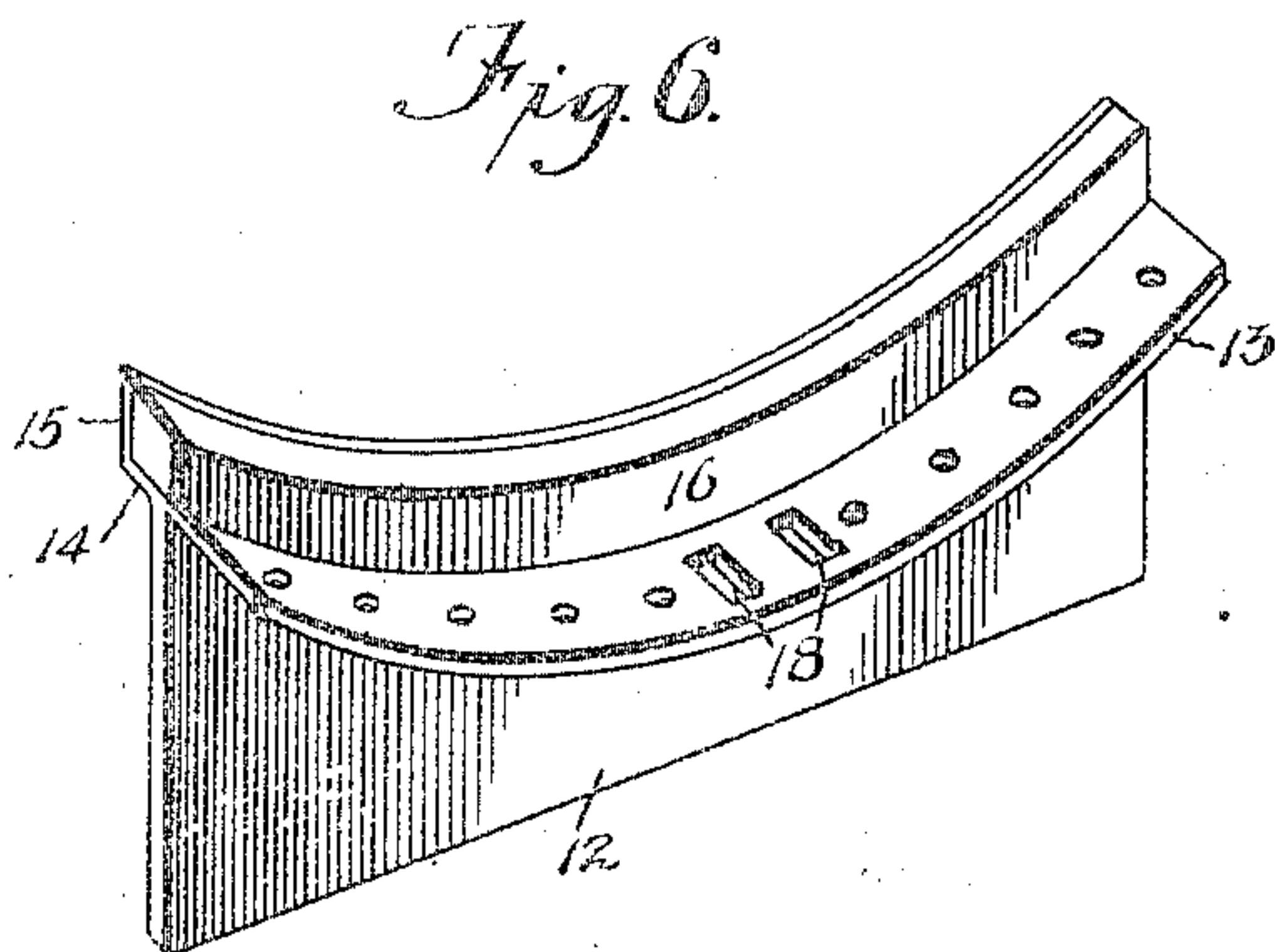
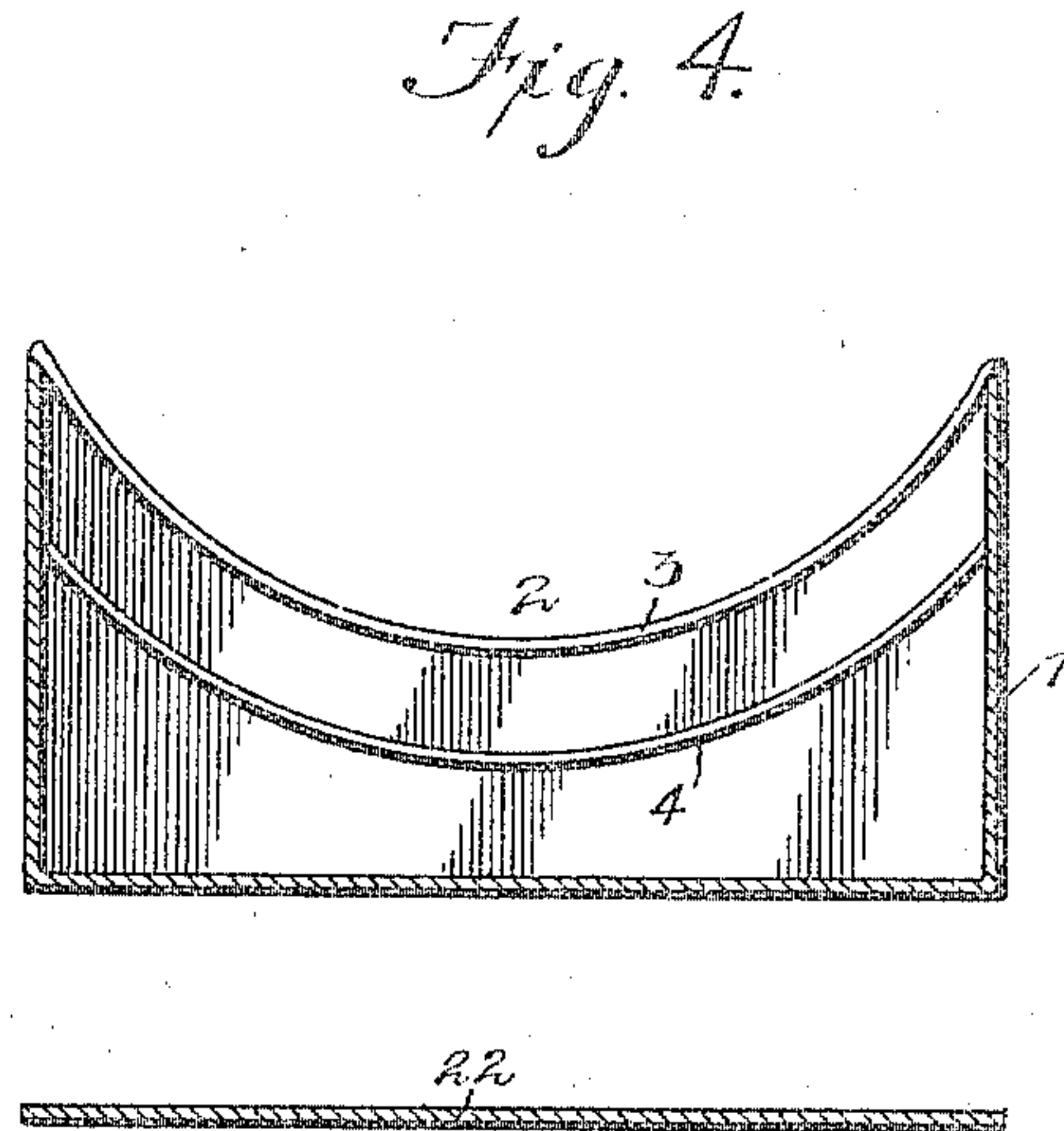
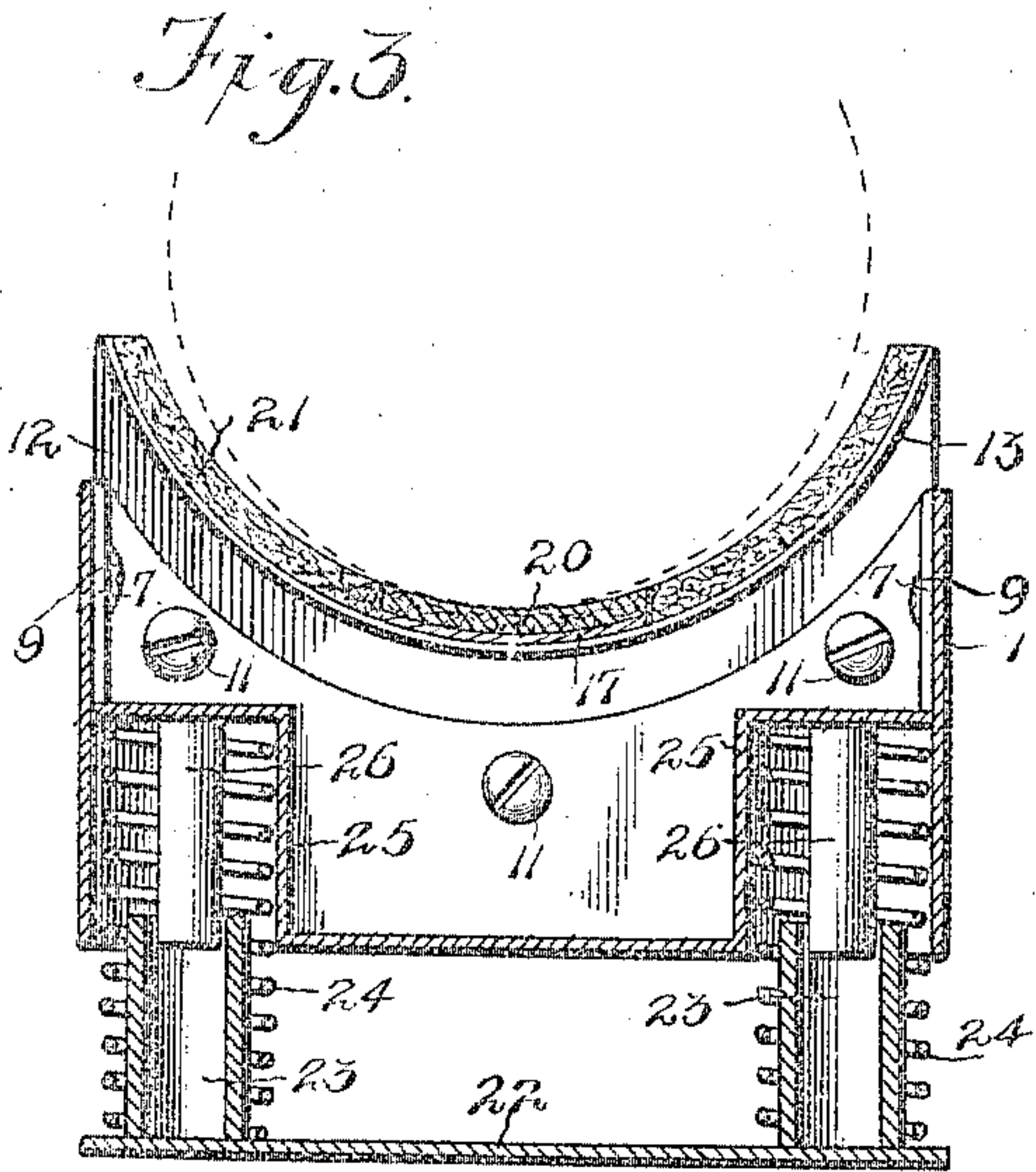
PATENTED APR. 12, 1904.

I. E. ROGERS & G. A. FRY.
JOURNAL BOX.

APPLICATION FILED JUNE 12, 1903.

NO MODEL.

2 SHEETS—SHEET 2.



Witnesses
Ralph A. Shepard.
H. J. Shepard.

Ion E. Rogers Inventors
and George A. Fry
By
C. C. Shepard, Attorney

UNITED STATES PATENT OFFICE.

ION E. ROGERS AND GEORGE A. FRY, OF COLUMBUS, OHIO.

JOURNAL-BOX.

SPECIFICATION forming part of Letters Patent No. 757,145, dated April 12, 1904.

Application filed June 12, 1903. Serial No. 181,335. (No model.)

To all whom it may concern:

Be it known that we, ION E. ROGERS and GEORGE A. FRY, citizens of the United States, residing at Columbus, in the county of Franklin and State of Ohio, have invented a certain new and useful Improvement in Journal-Boxes, of which the following is a specification.

This invention relates to journal-boxes, particularly to that class of boxes employed in connection with locomotive-axles, and has for its object to provide an improved form of "cellar" which is adapted to be fitted into any ordinary form of journal-box. It is furthermore designed to provide for adjusting the device so as to accommodate the same to the axle and also to provide for taking up wear on the oil-saturated waste, so as to maintain the latter in effectual contact with the axle.

With these and other objects in view the present invention consists in the combination and arrangement of parts, as will be hereinafter more fully described, shown in the accompanying drawings, and particularly pointed out in the appended claims, it being understood that changes in the form, proportion, size, and minor details may be made within the scope of the claims without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings, Fig. 1 is a plan view of a cellar for journal-boxes embodying the features of the present invention. Fig. 2 is a longitudinal sectional view thereof. Fig. 3 is a cross-sectional view on the line 3-3 of Fig. 2. Fig. 4 is a similar view on the line 4-4 of Fig. 2, the adjacent journal-bearing bracket being omitted. Fig. 5 is a plan view of one end of the device with the adjacent journal-bearing bracket removed. Fig. 6 is a detail perspective view of one of the journal-bearing brackets.

Like characters of reference designate corresponding parts in each and every figure of the drawings.

In carrying out the present invention the body of the cellar is in the form of a substantially rectangular box 1, which is open throughout its top and has its opposite ends concaved throughout the upper edges, as at 2, to form

seats for the journal-bearing brackets, as will be hereinafter described. Each concaved edge portion 2 is provided with an inwardly-directed flange 3, and a similar flange 4 is carried by the inner face of the adjacent end of the box and disposed parallel with the flange 2 to form a groove or seat for the reception of an arcuate packing-strip 5, preferably of leather and of a thickness to project beyond the flanges and into the box.

Disposed transversely within the box and spaced at a suitable distance from the ends thereof are the partitions 6, which have their upper edges concaved to correspond with the concaved end edges of the box. The opposite ends of each partition are provided with lateral flanges 7, that lie flat against the adjacent thickened side portions 8 of the box and are connected thereto by means of suitable fastenings 9. At suitable intervals the partition is provided with thickened portions or bosses 10, which are pierced by set-screws 11.

Within the seat or socket formed by each partition 6 and the adjacent end of the box is a journal-bearing bracket consisting of a plate 12, the upper edge of which is concaved and provided with a comparatively wide inwardly-directed flange 13 and a narrower outwardly-directed flange 14, the latter being provided at its outer edge with an upstanding rim 15. In the seat formed between the flange 14 and its rim portion 15 is a filling 16, of Babbitt metal, that projects slightly above the upper edge of the rim and forms a bearing for contact with the under side of an axle. As best illustrated in Fig. 2 of the drawings, it will be noted that the part 12 of the journal-bearing bracket bears against the packing-strip 5 and may be held thereagainst with any degree of tension by means of the set-screw 11. Furthermore, it will be noted that the flanges 4, which form the bottom of the seats which hold the packing-strips 5, also form walls or partitions to prevent upward escape of the lubricant at the ends of the cellar.

The opposite journal-bearing brackets are connected by means of a metallic bridgework 17, located at the longitudinal center of the box and considerably narrower than the latter. This plate is preferably perforated

and has at its opposite end portions supported upon the flanges 13 of the brackets and provided with longitudinal slots 18 for the reception of fastenings 19, set into the flanges.

5 Upon the bridge 17 is supported a packing-strip 20, preferably of felt, having transverse end portions 21 projected at opposite sides thereof and supported upon the flanges 13 of the brackets.

10 It is designed to yieldably support the cellar, and this is carried out by means of a base-plate 22, provided with upstanding tubular posts 23, preferably four in number and arranged in pairs adjacent to the opposite ends of the plate. Helical springs 24 embrace the posts, project above the tops thereof, and are received within sockets 25, opening through the bottom of the cellar and rising into the interior thereof. Suitable guide-pins 26 de-
20 pend from the tops of the sockets 25 and telescope within the tubular posts.

In the employment of the device of the present invention the base-plate 22 is placed within the bottom of the journal-box with the
25 springs 24 surrounding the tubular posts 23, after which the cellar 1 is placed within the journal-box with the guide-pins 26 received within the posts and the entire cellar yieldably supported upon the springs. It will be
30 understood that the cellar is filled with waste saturated with a suitable lubricant in the usual manner, and the packing-strip 20 takes the lubricant from the waste and wipes the same upon the axle. As the waste and the
35 strip 20 wear the springs 24 automatically take up this wear by elevating the cellar, and thereby maintaining the packing-strip and the waste in intimate contact with the axle. The axle of course bears upon the Babbitt facing-
40 strips 16, and as the cellar is moved upwardly by the spring the journal-bearing bracket moves downwardly to accommodate for the upward movement of the cellar. It will here
45 be understood that the purpose of the set-screws 11 is to force the shank portions 12 of the bearing-bracket into such frictional contact with the packing-strips 3 as to prevent accidental downward working of the bracket, while permitting of said brackets being forced
50 downwardly under the action of the springs 24 in taking up wear on the waste.

From the foregoing description it will be understood that the device of the present invention is complete in itself and in condition
55 for application to any ordinary journal-box without changing or altering the latter in any manner whatsoever. Furthermore, the several parts of the device may be conveniently separated and replaced when worn or damaged, whereby the device may be conveniently
60 maintained in effective working order.

Having thus described the invention, what is claimed, and desired to be secured by Letters Patent, is—

65 1. In a device of the character described, a

spring-supported cellar, and opposite journal-bearing brackets carried by the cellar, yieldable independently thereof and projected above the ends of the cellar to support a journal.

2. In a device of the character described, a spring-supported cellar, and opposite journal-bearing brackets projected above the ends of the cellar and frictionally supported upon the cellar to yield independently thereof.

3. In a device of the character described, a cellar, opposite journal-bearing brackets carried by the cellar, and a detachable bridge member connecting the brackets.

4. As a new article of manufacture, a journal-bearing bracket having an arcuate journal-seat, a Babbitt-metal facing for one portion of the seat, and packing for the other portion of the seat.

5. As a new article of manufacture, a journal-bearing bracket embodying an upright plate forming a shank, a concaved seat at the top of the shank, and a longitudinal facing of Babbitt metal for one portion of the seat.

6. As a new article of manufacture, a journal-bearing bracket embodying an upright plate forming a shank, the upper edge of the shank being concaved, dished flanges projected at opposite sides of the upper edge of the shank, one of the flanges having an outer up-
95 standing rim, and a facing of Babbitt metal fitted at the seat between the rim and the adjacent flange.

7. In a device of the character described, opposite journal-bearing brackets embodying shanks having concaved upper edges, inner and outer dished flanges at the concaved edges of the shanks, a facing of Babbitt metal for each of the outer flanges, and a bridge member connected at opposite ends to the inner
105 flanges.

8. In a device of the character described, a cellar having opposite transverse sockets, journal-bearing brackets having shanks fitted in the sockets, and set-screws piercing the
110 sockets and bearing against the shanks.

9. In a device of the character described, a cellar having opposite transverse sockets, packing at one of the inner walls of each of the sockets, a set-screw piercing the opposite
115 wall of each socket, and a journal-bearing bracket having a shank fitted in each socket and held against the packing by the set-screw.

10. In a device of the character described, a cellar having transverse sockets on the inner
120 faces of its end walls, transverse partitions adjacent to the end walls, packing within the sockets, set-screws piercing the partitions, and journal-bearing brackets having shanks fitted between the partitions and the ends of
125 the cellar and held against the packing by the set-screws.

11. In a device of the character described, the combination of a spring-supported cellar, transverse partitions within the cellar and
130

near the ends thereof, opposite journal-bearing brackets, each bracket embodying a shank to fit between a partition and the adjacent end of the cellar, and provided at its upper end with a dished seat, a facing of Babbitt metal at the outer portion of the seat, set-screws piercing the partitions and frictionally engaging the shanks, a bridge member connect-

ing the seats of the brackets, and packing upon the bridge member and the seats.

ION E. ROGERS.
GEORGE A. FRY.

In presence of—

C. C. SHEPHERD,
P. S. KARSHNER.